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TERMINAL ISLAND TREATMENT PLANT 445 Ferry Street San Pedro, CA 90731 (310) 548-7520 FAX: (310) 548-7772

January 24, 2000

Ms. Lauren Fondahl, Biosolids Coordinator U.S. EPA - Region IX (W-5-2) 75 Hawthorne Street San Francisco, CA 94105

Dear Ms. Fondahl:

## CITY OF LOS ANGELES' TERMINAL ISLAND WASTEWATER TREATMENT PLANT 1999 BIOSOLIDS ANNUAL REPORT

On behalf of the City of Los Angeles, Bureau of Sanitation, I am sending the enclosed 1999 Biosolids Annual Report for Terminal Island Wastewater Treatment Plant. This satisfies the generator reporting requirements in accordance with the U.S. EPA 40 CFR Part 503 Sewage Sludge Regulations.

If you have any questions, please contact Hi Sang Kim of my staff at (310) 732-4715.

Sincerely,

Y. J. SHAO, Plant Manager II **Terminal Island Treatment Plant** 

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YJS/PW/frk

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# 1999 ANNUAL REPORT FOR THE CITY OF LOS ANGELES TERMINAL ISLAND WASTEWATER TREATMENT PLANT IN COMPLIANCE WITH USEPA 40 CFR PART 503 SEWAGE SLUDGE REGULATIONS REPORTING REQUIREMENT

#### **SUBMITTED TO**

Lauren Fondahl, Biosolids Coordinator U.S. Environmental Protection Agency Region 9

February 2000

**PROGRAM STAFF** 

Bureau of Sanitation Y.J. Shao, Plant Manager II

PREPARED BY

Bureau of Sanitation
Department of Public Works
City of Los Angeles

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#### **SECTION 1**

## **BACKGROUND INFORMATION**

The City of Los Angeles, Department of Public Works, Bureau of Sanitation operates four wastewater facilities (Hyperion and Terminal Island Treatment Plants and Donald C. Tillman and Los Angeles Glendale Water Reclamination Plants) within a 600 square mile service area that includes four million people and 29 contracting cities and agencies. The Hyperion Treatment Plant (HTP) receives and processes flow from its service area and from the two water reclamation plants while the Terminal Island Treatment Plant (TITP) processes flow from its independent service area. TITP processed an average of 15.1 million gallons per day of wastewater and produced an average of 9.4 dry tons per day of biosolids during 1999. All of the biosolids are beneficially used.

Thus, the City of Los Angeles must comply with the standards of the United States Environmental Protection Agency (USEPA) 40CFR Part 503 Sewage Sludge Regulations. The following are the reports requirements:

### **Preparer to Others:**

General Information was provided to land applier, and composter as stated in Section 503.12(d), (f) and (g).

# Preparer to USEPA Region 9:

The Terminal Island Treatment Plant is required to report the information in Section 503.18 for preparer of biosolids. The information includes the submittal of information in section 503.17(a)(4)(i)(A) through (D) from January 1999 through December 1999.

# **Beneficial Uses of Biosolids**

Three thousand, four hundred and thirty one dry metric tons of biosolids generated by TITP from January 1999 to December 1999 were 100% beneficially used as soil amendment (land application).

Facility information for Preparer, and land applier, is provided in Appendix A.

#### **SECTION 2**

# PREPARER (distributed to land applier)

Section 503.12 (d) (f) and (g) (general requirements) states that the preparer shall provide information to the applier/composter to allow the applier/composter (deriver) to comply with the requirements.

Section 503.18 (reporting) requires the following information in Section 503.17 (a)(4)(i)(A) through (D) for Terminal Island from January 1999 through December 1999 to be submitted to the permitting authority on February 19, 2000.

# Information Provided to others [503.12 (d), (f) and (g)]

All the information under Section 503.17 (a)(4)(i)(A) to (D) for the Terminal Island biosolids was provided to land appliers Biogro System and Gardner – Arciero. Other information was supplied as requested.

# Pollutant Concentrations [503.17 (a)(4)(i)(A)]

Section 503.16 (frequency of monitoring) requires TITP to monitor pollutant concentrations in biosolids on a bimonthly basis. However, TITP biosolids are analyzed monthly for all ten metals.

The results are summarized as follows:

- All TITP metals concentrations were below Table 1 ceiling concentration limits of Section 503.13.
- All TITP metals concentrations remained below Table 3 of Section 503.13.

Refer to Appendix B for the detailed, analytical test results and methods for TITP pollutant concentrations.

The biosolids samples are prepared by the appropriate digestion and extraction procedures described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 3rd edition, U.S. EPA, 1986 with Revisions up to 1992.

# Certification Statement, Pathogen Reduction (PR) and Vector Attraction Reduction (VAR) [503.17 (a)(4)(i)(B) to (D)]

Refer to Appendix C for the certification statements containing descriptions of PR and VAR for TITP biosolids.

All TITP material complied with Class B requirements for PR and VAR.

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# APPENDIX A

Facility Information for Preparer, and Land Applier

# **BIOSOLIDS PREPARER FACILITY INFORMATION**

# TERMINAL ISLAND TREATMENT PLANT - PREPARER OF BIOSOLIDS:

City of Los Angeles Department of Public Works Bureau of Sanitation Terminal Island Treatment Plant

Y. J. Shao, Plant Manager II 445 Ferry Street San Pedro, CA 90731

NPDES Number: CA0053856

#### BIOSOLIDS LAND APPLIER FACILITY INFORMATION

Biogro System 172 98<sup>th</sup> Avenue 1. Oakland, CA 94603

> Robert Bernicchi, General Manager and Vice President Telephone: (510) 613-2831

FAX: (510) 613-2837

2. Gardner - Arciero P.O. Box 277 Buellton, CA 93427

> Slick Gardner, General Manager Telephone: (805) 688-4922

FAX: (805) 688-8742

### **APPENDIX B**

# Terminal Island Treatment Plant' Analytical Test Results of Metals Concentrations for Preparer

Table 3. BENEFICIAL USE ASSESSMENT OF BIOSOLIDS AT TERMINAL ISLAND TREATMENT PLANT
The concentrations are in mg/kg of dry weight
12 Month Trend

o/Yr	Нq											
		%TS	As	Cd	Cr	Cu	<b>M</b> o	Pb	Hg	Ni	Se	Zn
			3050# 7061##	3050# 6010##	3050# 6010##	3050# 6010##	3050# 6010##	3050# 6010##	7471# 7471##	3050# 6010##	3050# 7740##	3050# 6010##
99	8.1	13.2	11.0	3.08	37.3	278	21.7	51 1	1 92	39.6	71 0	740
99	8.0	12.4	12.3	3.15								782
99	8.2	17.8	8.8	4.77								904
99	7.9	16.8	10.1	4.30	29.5	252						817
99	7.9	24.1	8.8	3.38	20.8	216						647
99	7.8	16.1	12.7	5.77	35.0							1080
99	8.2	14.0	6.6	6.29	31.9							879
99	8.3	16.3	6.5	4.67	32.3	260						902
99	7.9	14.9	6.4	4.62	43.8	270						859
9	8.8	15.6	6.7	4.10	38.5	292						917
9	8.8	14.7	8.3	3.62								859
99	8 . 4	16.6	8.3	3.55	35.5	211	22.6	41.2	2.11	29.6	45.7	964
AVG	8.2	16.0	8.9	4.27	34.0	261	25 5	55.2	2 15	24 7	60.1	0.63
MAX	8.8	24.1	12.7	6.29	43.8	310						863 1080
MIN	7.8	12.4	6 . 4	3.08	20.8	211	20.1	34.7	1.61	25.7	44.9	647
ng Con	C *		75	85	***	4300	75	840	5.7	430	100	7500
Pollutant Conc** 41				39	***							7500 2800
9999999	99 99 99 99 99 99 99 99 99 99 99 MAX MIN	99 8.0 99 8.2 99 7.9 99 7.8 99 8.2 99 8.3 99 8.3 99 8.8 99 8.8 99 8.8 MIN 7.8	8.0 12.4 99 8.2 17.8 99 7.9 16.8 99 7.9 24.1 99 7.8 16.1 99 8.2 14.0 99 8.3 16.3 99 7.9 14.9 99 8.8 15.6 99 8.8 14.7 19 8.4 16.6 AVG 8.2 16.0 MAX 8.8 24.1 MIN 7.8 12.4	89 8.0 12.4 12.3 89 8.2 17.8 8.8 89 7.9 16.8 10.1 99 7.9 24.1 8.8 89 7.8 16.1 12.7 89 8.2 14.0 6.6 89 8.3 16.3 6.5 89 7.9 14.9 6.4 89 8.8 15.6 6.7 89 8.8 14.7 8.3 89 8.4 16.6 8.3 80 8.4 16.6 8.3	8.9 8.0 12.4 12.3 3.15 8.9 8.2 17.8 8.8 4.77 8.9 7.9 16.8 10.1 4.30 8.9 7.9 24.1 8.8 3.38 8.9 7.8 16.1 12.7 5.77 8.9 8.2 14.0 6.6 6.29 8.3 16.3 6.5 4.67 8.9 7.9 14.9 6.4 4.62 8.8 15.6 6.7 4.10 8.8 15.6 6.7 4.10 8.8 14.7 8.3 3.62 8.4 16.6 8.3 3.55  AVG 8.2 16.0 8.9 4.27 MAX 8.8 24.1 12.7 6.29 MIN 7.8 12.4 6.4 3.08	8.9 8.0 12.4 12.3 3.15 38.1 38.1 39.9 8.2 17.8 8.8 4.77 28.1 39.9 7.9 16.8 10.1 4.30 29.5 39.9 7.9 24.1 8.8 3.38 20.8 39.9 7.8 16.1 12.7 5.77 35.0 35.0 39.9 8.2 14.0 6.6 6.29 31.9 39.9 7.9 14.9 6.4 4.62 43.8 39.9 7.9 14.9 6.4 4.62 43.8 39.9 8.8 15.6 6.7 4.10 38.5 39.9 8.8 14.7 8.3 3.62 37.4 39.9 8.4 16.6 8.3 3.55 35.5	8.0 12.4 12.3 3.15 38.1 290 8.0 12.4 12.3 3.15 38.1 290 8.9 8.2 17.8 8.8 4.77 28.1 278 99 7.9 16.8 10.1 4.30 29.5 252 99 7.9 24.1 8.8 3.38 20.8 216 99 7.8 16.1 12.7 5.77 35.0 310 99 8.2 14.0 6.6 6.29 31.9 245 99 8.3 16.3 6.5 4.67 32.3 260 99 7.9 14.9 6.4 4.62 43.8 270 99 8.8 15.6 6.7 4.10 38.5 292 99 8.8 15.6 6.7 4.10 38.5 292 99 8.8 14.7 8.3 3.62 37.4 235 99 8.8 14.7 8.3 3.55 35.5 211  AVG 8.2 16.0 8.9 4.27 34.0 261 MAX 8.8 24.1 12.7 6.29 43.8 310 MIN 7.8 12.4 6.4 3.08 20.8 211	8.0 12.4 12.3 3.15 38.1 290 25.6 29 8.2 17.8 8.8 4.77 28.1 278 27.8 29.9 7.9 16.8 10.1 4.30 29.5 252 26.0 29.7 7.9 24.1 8.8 3.38 20.8 216 20.1 29.9 7.8 16.1 12.7 5.77 35.0 310 39.6 29.9 8.2 14.0 6.6 6.29 31.9 245 29.0 29.9 8.3 16.3 6.5 4.67 32.3 260 25.5 29.9 7.9 14.9 6.4 4.62 43.8 270 24.2 29.9 8.8 15.6 6.7 4.10 38.5 292 23.0 29.9 8.8 14.7 8.3 3.62 37.4 235 21.1 22.6 29.9 8.4 16.6 8.3 3.55 35.5 211 22.6 20.6 20.6 20.6 20.6 20.6 20.6 20.6	8.0 12.4 12.3 3.15 38.1 290 25.6 77.5 8.9 8.2 17.8 8.8 4.77 28.1 278 27.8 63.4 8.9 7.9 16.8 10.1 4.30 29.5 252 26.0 55.7 8.9 7.9 24.1 8.8 3.38 20.8 216 20.1 44.4 8.9 7.8 16.1 12.7 5.77 35.0 310 39.6 84.5 8.9 8.2 14.0 6.6 6.29 31.9 245 29.0 49.6 8.9 8.3 16.3 6.5 4.67 32.3 260 25.5 58.8 8.9 7.9 14.9 6.4 4.62 43.8 270 24.2 58.1 8.9 8.8 15.6 6.7 4.10 38.5 292 23.0 34.7 8.9 8.8 14.7 8.3 3.62 37.4 235 21.1 43.5 8.9 8.8 14.6 8.3 3.55 35.5 211 22.6 41.2  AVG 8.2 16.0 8.9 4.27 34.0 261 25.5 55.2 MAX 8.8 24.1 12.7 6.29 43.8 310 39.6 84.5 MIN 7.8 12.4 6.4 3.08 20.8 211 20.1 34.7	8.0 12.4 12.3 3.15 38.1 290 25.6 77.5 2.50 29 8.2 17.8 8.8 4.77 28.1 278 27.8 63.4 2.14 2.19 7.9 16.8 10.1 4.30 29.5 252 26.0 55.7 2.33 29 7.9 24.1 8.8 3.38 20.8 216 20.1 44.4 2.38 29 7.8 16.1 12.7 5.77 35.0 310 39.6 84.5 1.61 29 8.2 14.0 6.6 6.29 31.9 245 29.0 49.6 1.71 29 8.3 16.3 6.5 4.67 32.3 260 25.5 58.8 2.37 2.9 7.9 14.9 6.4 4.62 43.8 270 24.2 58.1 1.81 29 8.8 15.6 6.7 4.10 38.5 292 23.0 34.7 2.69 8.8 14.7 8.3 3.62 37.4 235 21.1 43.5 2.20 8.4 16.6 8.3 3.55 35.5 211 22.6 41.2 2.11	8.0 12.4 12.3 3.15 38.1 290 25.6 77.5 2.50 35.7 29 8.2 17.8 8.8 4.77 28.1 278 27.8 63.4 2.14 31.4 31.4 39 7.9 16.8 10.1 4.30 29.5 252 26.0 55.7 2.33 29.3 7.9 24.1 8.8 3.38 20.8 216 20.1 44.4 2.38 25.7 39 7.8 16.1 12.7 5.77 35.0 310 39.6 84.5 1.61 38.3 39 8.2 14.0 6.6 6.29 31.9 245 29.0 49.6 1.71 36.9 8.3 16.3 6.5 4.67 32.3 260 25.5 58.8 2.37 32.3 29.9 7.9 14.9 6.4 4.62 43.8 270 24.2 58.1 1.81 42.6 39 8.8 15.6 6.7 4.10 38.5 292 23.0 34.7 2.69 28.7 39 8.8 14.7 8.3 3.62 37.4 235 21.1 43.5 2.20 46.0 29 8.4 16.6 8.3 3.55 35.5 211 22.6 41.2 2.11 29.6	8.1 13.2 11.0 3.08 37.3 278 21.7 51.1 1.92 39.6 71.0 29 8.0 12.4 12.3 3.15 38.1 290 25.6 77.5 2.50 35.7 74.8 29 8.2 17.8 8.8 4.77 28.1 278 27.8 63.4 2.14 31.4 57.9 29 7.9 16.8 10.1 4.30 29.5 252 26.0 55.7 2.33 29.3 59.5 29 7.9 24.1 8.8 3.38 20.8 216 20.1 44.4 2.38 25.7 44.9 29 7.8 16.1 12.7 5.77 35.0 310 39.6 84.5 1.61 38.3 74.5 29 8.2 14.0 6.6 6.29 31.9 245 29.0 49.6 1.71 36.9 53.2 29.8 216.3 6.5 4.67 32.3 260 25.5 58.8 2.37 32.3 60.0 29 8.3 16.3 6.5 4.67 32.3 260 25.5 58.8 2.37 32.3 60.0 29 8.3 16.3 6.5 4.67 32.3 260 25.5 58.8 2.37 32.3 60.0 29 8.8 15.6 6.7 4.10 38.5 292 23.0 34.7 2.69 28.7 59.0 29 8.8 15.6 6.7 4.10 38.5 292 23.0 34.7 2.69 28.7 59.0 29 8.8 14.7 8.3 3.62 37.4 235 21.1 43.5 2.20 46.0 65.3 29 8.8 14.7 8.3 3.62 37.4 235 21.1 43.5 2.20 46.0 65.3 29 8.4 16.6 8.3 3.55 35.5 211 22.6 41.2 2.11 29.6 45.7

<sup>#,##</sup> Sample preparation and analytical methods, respectively, are adopted from EPA SW-846, 3rd Edition, 1986
\* Ceiling Concentrations in Table 1 of EPA Part 503 sludge regulation.

<sup>\*\*</sup> Pollutant Concentration in Table 3 of EPA Part 503 sludge regulation.

<sup>\*\*\*</sup> Limit was deleted according to Federal Register vol. 60, No. 206 of Oct. 25, 1995.

<sup>\*\*\*\*</sup> Pending for EPA's reconsideration.